

Applicants: William C. Olson and Paul J. Maddon  
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In the Specification:

Please amend the paragraph on page 6, lines 10-24 as follows. A marked-up version of the amended paragraph is attached hereto as Exhibit A.

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B1 --A two color staining protocol was used to assess binding of mAbs to mutant CCR5 proteins, tagged at the C-terminus with the HA peptide. HeLa cells expressing CCR5 point mutants were incubated with saturating concentrations of each mAb followed by detection with a PE-labeled anti-mouse IgG. Cell surface co-receptor expression was measured by double-staining of the cells with a FITC labeled anti-HA mAb. The four grids correspond to the four extracellular domains of CCR5. The first row of every grid indicates the amino acid sequence of the corresponding CCR5 extracellular domain (SEQ ID NOS 1-4). Binding of anti-CCR5 mAbs to the alanine mutant of each residue is expressed as a percentage of binding to wild-type CCR5, as described in Materials and Methods.--

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In the Claims:

Please amend the claims as follows. A marked-up copy of the amended claim, showing the amendments with the use of bracketing and underlining, is attached hereto as Exhibit B.

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B2 --87. (amended) An isolated nucleic acid molecule encoding one or more CDR regions of an anti-chemokine receptor 5 (CCR5)

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B2  
cont

monoclonal antibody designated PA 14 (ATCC Accession No. HB-12610), monoclonal antibody designated PA 8 (ATCC Accession No. HB-12605), monoclonal antibody designated PA 9 (ATCC Accession No. HB-12606), monoclonal antibody designated PA 10 (ATCC Accession No. HB-12607), monoclonal antibody designated PA 11 (ATCC Accession No. HB-12608), or monoclonal antibody designated PA 12 (ATCC Accession No. HB-12609).--

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Add the following new claims:

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B3

--91. (New) The nucleic acid molecule according to claim 87, wherein the CDR regions bind to an epitope of CCR5, said epitope comprises amino acid residues in (1) an N-terminus of CCR5, (2) amino acid residues in one of three extracellular loop regions of CCR5, or (3) a combination thereof.--

--92. (New) The nucleic acid molecule according to claim 87, wherein the CDR region is comprised within an Fab portion of the antibody.--

--93. (New) The nucleic acid molecule according to claim 87, wherein the CDR region is comprised within a variable domain of the antibody.--

--94. The nucleic acid molecule according to claim 87, wherein the CDR region is comprised within an F (ab')<sub>2</sub> portion of the antibody.--

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BB  
cont  
--95. (New) The nucleic acid molecule according to claim 87, wherein the nucleic acid coding the CDR region is comprised in a hybridoma selected from the group of hybridomas consisting of PA 14 (ATCC Accession No. HB-12610), PA 8 (ATCC Accession No. HB-12605), PA 9 (ATCC Accession No. HB-12606), PA 10 (ATCC Accession No. HB-12607), PA 11 (ATCC Accession No. HB-12608), and PA 12 (ATCC Accession No. HB-12609).--

--96. (New) A nucleic acid molecule encoding an anti-CCR5 monoclonal antibody or portion thereof, said portion comprising one or more CDR regions, wherein the anti-CCR5 monoclonal antibody is selected from the group consisting of monoclonal antibody designated PA 14 (ATCC Accession No. HB-12610), monoclonal antibody designated PA 8 (ATCC Accession No. HB-12605), monoclonal antibody designated PA 9 (ATCC Accession No. HB-12606), monoclonal antibody designated PA 10 (ATCC Accession No. HB-12607), monoclonal antibody designated PA 11 (ATCC Accession No. HB-12608), and monoclonal antibody designated PA 12 (ATCC Accession No. HB-12609).--

--97. (New) The nucleic acid molecule according to claim 96, wherein the CDR regions bind to an epitope of CCR5, said epitope comprises amino acid residues in (1) an N-terminus of CCR5, (2) amino acid residues in one of three extracellular loop regions of CCR5, or (3) a combination thereof.--

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--98. (New) The nucleic acid molecule according to claim 95, wherein the portion is an Fab portion of the antibody.--

--99. (New) The nucleic acid molecule according to claim 95, wherein the portion is a variable domain of the antibody.--

B3  
cont  
--100. (New) The nucleic acid molecule according to claim 95, wherein the portion is an F(ab')<sub>2</sub> of the antibody.--

--101. (New) The nucleic acid molecule according to claim 95, wherein the nucleic acid encoding the anti-CCR5 monoclonal antibody or portion thereof is comprised in a hybridoma selected from the group of hybridomas consisting of PA 14 (ATCC Accession No. HB-12610), PA 8 (ATCC Accession No. HB-12605), PA 9 (ATCC Accession No. HB-12606), PA 10 (ATCC Accession No. HB-12607), PA 11 (ATCC Accession No. HB-12608), and PA 12 (ATCC Accession No. HB-12609).--

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